MIL-BOOK 10 SERIES NOTEBOOK

OPERATOR' S MANUAL

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TRADEMARKS

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NOTE

Information in this manual is subject to change without notice.

CHAPTER 1

Getting Started

Congratulations on purchasing this Tablet PC.

This hand-held computer, having no fan and being almost noiseless, is especially designed for the practical applications of warehouses, automobiles, vehicles, public security, repairing, assisting the handicapped, and other demanding situations where conventional notebook computers just cannot measure up.

This chapter first tells you step by step how to get the computer up and running. You will find instructions for these procedures:

- Unpacking
- Connecting to AC power
- Turning on the computer
- Turning off the computer

Then, you will find a section briefly introducing the external components of the computer. And the last section navigates you to the information you may need after the computer is ready for use.

Getting the Computer Running

This section guides you through the procedures for getting the computer ready for operation.

Unpacking

After unpacking the shipping carton, you should find these standard items:

- Tablet PC
- Accessories:
  – AC adapter (100~240 VAC, 50~60 Hz)
  – AC power cord (US, CE, UK, SA)
  – Driver CD
  – X-Bay (optional):
    Module-1: two serial I/O / RJ-45 / IEEE 1394
    Module-2: wireless LAN (802.11B)
    Module-3: wireless modem (CDPD)
  – Expansion box (optional)
    Port Replicator module: includes COM1/4, PIO1, CRT, two USB ports (connects behind USB hub, FDD bootable), PS/2 keyboard and mouse, MIC input, earphone out, CD-ROM and AC adapter input
    CD-ROM module: 24X TEAC CD-224E or better
    DVD-ROM module: 8X Pioneer K-11T or better
    USB FDD module: 1.44 MB double-sided high density
  – Wireless keyboard (optional)
  – Car adapter/charger (10.7~32 VDC) – (optional)
  – Secondary battery (optional)
  – Battery charger for secondary battery (optional)
  – Carrying bag (optional)
  – CCD camera module (optional)
  – This *Operation Manual*

Inspect all the items. If any item is damaged or missing, notify your dealer immediately.

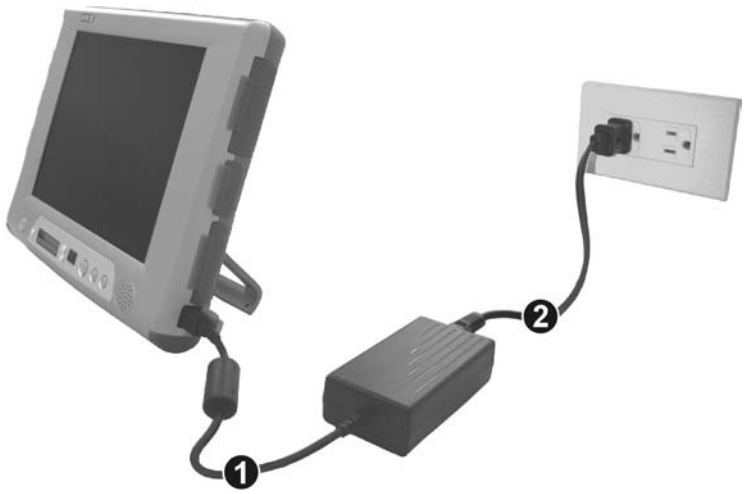
Keep the shipping carton and packing materials in case you need to ship or store the computer in the future.

Connecting to AC Power

The computer operates either on the external AC power or internal battery power. It is suggested that you use AC power when you start up the computer for the first time.

> CAUTION: Use only the AC adapter included with your computer. Using other AC adapters may damage the computer.

1. Make sure the computer is turned off.
2. Plug the DC cord of the AC adapter to the power connector on the right side of the computer (❶).
3. Plug the female end of the AC power cord to the AC adapter and the male end to an electrical outlet (❷).



4. When the AC adapter is connected, the indicator on the AC adapter lights up, indicating that power is being supplied from the electrical outlet to the AC adapter and onto your computer. Now, you are ready to turn on the computer.

CAUTION:

- When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or the computer.
- When unplugging the connector, always hold the plug head. Never pull on the cord.

NOTE: When the AC adapter is connected, it also charges the battery pack. For information on using battery power, see Chapter 3.

Positioning the Tablet PC

The computer can be placed upright using its stand found at the back. To place the computer in an upright position, pull open the stand located at the back as shown on the next figure.

NOTE: It is recommended that you operate the Tablet PC in an upright position as opposed to letting it lie flat on its back in order to provide adequate air ventilation.

The wireless keyboard operates on four "size-AA" (1.5-volt) batteries on the battery compartment located at the back. Be sure to observe the correct polarity when inserting the batteries.

NOTE: The condition of the batteries also affects the effectiveness of transmission. If a weakness in transmission is detected, try changing a set of new batteries.

Using the Wireless Keyboard (option)

The wireless keyboard can either be placed flat on the table or inclined using its stand found at the back. To place the wireless keyboard in an

upright position, pull open the stand located at the back as shown on the next figure.

Place the wireless keyboard in front of the Tablet PC with no obstructions between them to allow unhampered communication between the computer and keyboard's IR port.

> NOTE: It is recommended that the transmission distance must not exceed 3 meters and that vertical transmission angle is within $\pm 15^0$ while horizontal transmission angle is within $\pm 30^0$.

Turning On and Off the Computer

Turning On

1. Make sure the computer is connected to AC power.
2. Press the power button ⏻.

3. Each time the computer is turned on, it performs a Power-On Self Test (POST), and the operating system such as Windows should start.

Turning Off

To turn off the computer power, use the "Shut Down" command of your operating system.

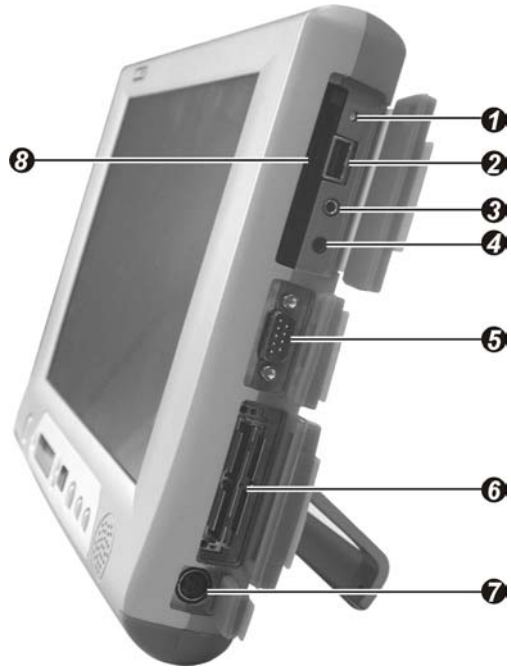
> NOTE: There are other ways you can stop the computer so that you will be back to where you left off when you next turn on the computer. (See "Stopping the Computer" in Chapter 2 for information.)

> CAUTION: If you have to turn the computer on again immediately after turning it off, wait for at least five seconds. Turning the computer off and on rapidly can damage it.

Taking a Look at the Computer

This section identifies the external components of the computer and briefly describes the function of each component.

Right-Side Components



Ref	Component	Description	See Also
1	**Reset Button**	Allows you to reset the system.	P. 8-16
2	**USB Port**	Connects a USB device, such as a USB floppy drive, printer, digital camera, joystick, and more.	P. 4-7
3	**Microphone Connector**	Connects an external microphone.	P. 2-20

Ref	Component	Description	See Also
❹	**Audio Output Connector**	Connects a set of headphones, external speakers with amplifier, or an audio recording device.	P. 2-20
❺	**Serial Port**	Connects a serial device, such as a mouse.	P. 4-6
❻	**Expansion Port**	For connecting to: Port Replicator, CD/DVD-ROM module, or USB FDD module.	P. 2-14, 4-2, 4-4
❼	**Power Connector**	Connects the AC adapter.	P. 1-3
❽	**PC Card Slot**	Accepts a PC Card for additional functions.	P. 4-10

Left-Side Components

Ref	Component	Description	See Also
❶	**X-Bay Interface**	Connects additional wireless LAN, wireless modem (CDPD), external monitor, or 4 ports (COM1/4, IEEE 1394, and LAN).	P. 4-2
❷	**IR Port**	Connects an IrDA-compliant device for wireless data transfer.	P. 1-5, 4-8
❸	**RJ-11 Connector**	Connects the telephone line.	P. 2-21

Rear Components

Ref	Component	Description	See Also
❶	**Stand**	System's vertical angle of inclination after the stand is released 18 ± 3°.	P. 1-4
❷	**Secondary Battery Pack** (option)	Supplies power to your computer when external power is not connected.	P. 3-3
❸	**Touchscreen Pen**	Provides a convenient way to use the Touchscreen. Can be stretched for better grip and handling.	P. 2-9

Front Components

Ref	Component	Description	See Also
1	**LCD Panel and Touchscreen**	Displays the output of the computer. Also serves as your Touchscreen.	P. 2-9
2	**Power Button**	Turns the computer power ON and OFF. Also serves as the SUSPEND/RESUME switch.	P. 1-6
3	**Volume Control/ Brightness Control/ Battery Capacity**	Allows you to toggle between adjusting the sound volume of the computer or brightness of the LCD screen, or battery capacity.	P. 2-19
4	**Device Indicators**	Shows the current status of the computer's devices.	
	Power ON indicator		
	Num Lock Indicator		P. 2-5
	Caps Lock Indicator		P. 2-5
	Scroll Lock Indicator		P. 2-5

Ref	Component	Description	See Also
	888	Shows the speaker volume, or the LCD brightness level, or the primary/secondary battery capacity	
	SUSPEND	Suspend mode indicator (in reverse video)	
		Hard disk drive in-use indicator	
		Primary battery status indicator	
		Secondary battery status indicator	
		Volume adjust indicator	
		LCD brightness adjust indicator	
❺ ▲ ▼	**Speaker Volume/LCD Brightness Adjust Button**	The upper button provides you a quick way to increase while the lower button decreases the sound volume of the computer or brightness of the LCD screen.	P. 2-16, 2-19
❻	**IR Port**	Connects with a wireless keyboard (option) for wireless data transfer.	P. 1-5, 4-8
❼	**Function Keys 1** FN1**, 2** FN2**, 3** FN3	Each of the three buttons can be defined from F1 to F12 through the Setup utility.	P. 2-7, 5-15
❽	**Speaker**	Sends out sound and voice from the computer.	P. 2-19

Bottom-Side Components

Ref	Component	Description	See Also
1	**CCD USB Port**	Connects a standard USB CCD PC camera.	P. 4-7
2	**Internal Primary Battery Switch**	Allows you to turn on/off power coming from the internal primary battery.	

Where to Go from Here

As your computer is ready for operation, you may want to do any of the following now:

For this purpose…	Do this…
To know more about the computer…	Go on to the next chapter.
To install the operating system if your dealer has not already done so…	See the operating system manual.
To know more about the operating system…	Read the operating system manual.
To install the drivers if your dealer has not already done so…	See Chapter 6.
To set a power-on password…	See "Security Menu" in Chapter 5.
To charge the battery pack for the first time…	See "Charging the Battery Pack" in Chapter 3.

CHAPTER 2

Operating Your Tablet PC

This chapter provides information about the use of the computer.

If you are new to computers, reading this chapter will help you learn the operating basics. If you are already a computer user but are new to Tablet PCs, you may choose to read only the parts containing information unique to your computer.

Described in this chapter are the operating basics of these components:

- Wireless Keyboard
- Touchscreen
- Floppy disk drive
- Hard disk drive
- CD/DVD drive

And these features:

- Starting and stopping the computer
- Function keys
- Video features
- Audio features
- Communication features

Starting and Stopping the Computer

There are a number of ways to start and stop the computer.

Starting the Computer

You always start the computer using the power button ⏻.

A computer starts up with an operating system (OS) existing on the storage device such as the hard disk; or from a floppy disk or CD if you have the docking station installed. The computer will automatically load the OS after you turn it on. This process is called booting.

> NOTE: An operating system is the platform for all your software application programs to run on. The most widely used operating system today is Microsoft Windows.

Stopping the Computer

When you finish a working session, you can stop the computer by turning off the power or leaving the computer in Standby or Suspend mode:

To stop in this mode…	Do this…	To start up or resume again
Off	Follow the shutdown procedure of your operating system. This can prevent loss of unsaved data or damage to your software programs. If the system is locked up because of hardware or software problems, press the power button ⏻ to turn off the computer.	Press the power button ⏻.
Standby	Depending on your settings in Windows, you can put the computer in Standby mode by pressing the power button ⏻	Press any key.
Suspend	Depending on your settings in Windows, you can put the computer in Suspend mode by pressing the power button ⏻	Press the power button ⏻.

If you choose to stop in Standby or Suspend mode, you can return to where you left off the next time you start up the computer. (See “Power Management” in Chapter 3 for more information.)

Using the Wireless Keyboard (option)

Before using the wireless keyboard, see section on “Positioning the Tablet PC and Wireless Keyboard” on chapter 1. Your wireless keyboard has all the standard functions of a full-sized computer keyboard.

The standard functions of the keyboard can be further divided into five major categories:

- Mouse-control buttons
- Typewriter keys
- Cursor-control keys
- Numeric keys
- Function keys

Mouse-control Buttons

Mouse-control buttons found on both sides of the wireless keyboard are similar to the buttons on a mouse. The left button (❶) is similar to the left- and right-click mouse function. The right button (❷) allows you to slide the on-screen pointer horizontally, vertically, or diagonally.

Typewriter Keys

Typewriter keys are similar to the keys on a typewriter. Several keys are added such as the Ctrl, Alt, Esc, and lock keys for special purposes. The Control key is normally used in combination with other keys for program-specific functions. The Alternate key is normally used in combination with other keys for program-specific functions. The Escape key is usually used for stopping a process. Examples are exiting a program and canceling a command. The function depends on the program you are using. When the lock keys (Caps Lock, Num Lock, and Scroll Lock) are pressed, their corresponding indicators light up on the Tablet PC front panel's device indicators.

Cursor-Control Keys

NOTE: The word "cursor" refers to the indicator on the screen that lets you know exactly where on your screen anything you type will appear. It can take the form of a vertical or horizontal line, a block, or one of many other shapes.

Numeric Keypad

A 15-key numeric keypad is embedded in the typewriter keys as shown next:

Numeric keys facilitate entering of numbers and calculations. When Num Lock is on, the numeric keys are activated; meaning you can use these keys to enter numerals.

NOTE:
- When the numeric keypad is activated and you need to type the English letter in the keypad area, you can turn Num Lock off.
- Some software may not be able to use the numeric keypad on the external wireless keyboard.

Euro Symbol

If your Windows supports the Euro dollar sign €, you can press the sign on the keyboard.

- To press the Euro sign on the keyboard, hold down either of the Alt keys and type 0128 on the numeric keypad of your keyboard.
- To press the Euro sign on an UK keyboard, hold down the Alt Gr key and press 4 (which has an Euro sign on it).

Windows Keys

The keyboard has two keys that perform Windows-specific functions: Windows Logo key and Application key.

The Windows Logo key opens the Start menu and performs software-specific functions when used in combination with other keys. The Application key usually has the same effect as a right mouse click. (See your Windows manual for more information.)

Function Keys

On the top row of the keys are the function keys: F1 to F12. Function keys are multi-purpose keys that perform functions defined by individual programs.

Using the Touchscreen

CAUTION: Do not use a sharp object such as a ballpoint pen or pencil on the Touchscreen. Doing so may damage the Touchscreen surface. Use the included Touchscreen pen instead, which can be stretched for better grip and handling.

The Touchscreen is a touch-sensitive device that allows you to communicate with the computer by controlling the location of the pointer on the screen and making selection with the buttons.

The Touchscreen needs a special device driver support called a PenMount Utility, which allows you to easily use the Tablet PC without any external pointing device.

The Touchscreen pen is located at the rear of the Tablet PC (refer to "Rear Components" on chapter 1). You might need to tilt the Tablet PC after opening the Touchscreen penholder to get it. To use the Touchscreen, place the Touchscreen pen or your forefinger on the Touchscreen. As you slide your pen or fingertip across the screen, the pointer, or cursor, on the screen moves in the same direction across the screen as your fingertip or pen moves across the screen.

Touchscreen Pen Holder

Here are some common terms that you should know when using the Touchscreen:

Term	Action
Point	Move your finger or pen on the Touchscreen until the cursor points to the selection on the screen.
Click	Tap gently anywhere on the Touchscreen.
Double-click	Tap twice on the Touchscreen rapidly.
Drag and drop	Press lightly on the Touchscreen and move your finger or pen until you reach your destination (drag). Finally, release your finger or pen (drop) when you finish dragging your selection to the destination. The object will drop into the new location.
Scroll	To scroll is to move up and down or left and right in the working area on the screen. To move vertically, place your finger or pen on the right edge of the Touchscreen and slide your finger or pen up and down along the edge. To move horizontally, place your finger or pen on the bottom edge of the Touchscreen and slide your finger or pen left and right. This function works only after you install the Touchscreen driver supplied with the computer and it may not work for all applications.

TABLE NOTE: If you swap the left and right buttons, "tapping" on the Touchscreen as an alternative method of pressing the left mouse button will no longer be valid.

Configuring the Touchscreen

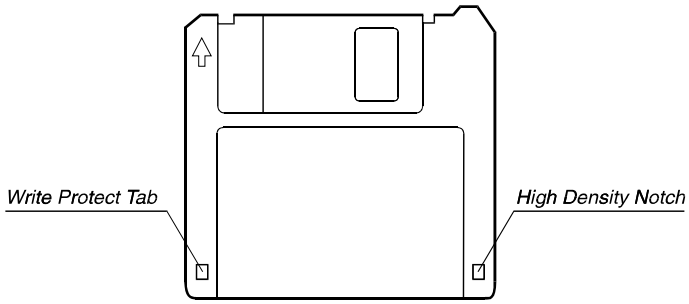
You may want to configure the Touchscreen to suit your needs. For example, if you are a left-handed user, you can swap the two buttons function of the left mouse-control button on the wireless keyboard so that you can use the right mouse button as the left mouse button and vise versa. You can also change the size of the on-screen pointer, the speed of the pointer, and so on.

To configure the Touchscreen, you can use the standard Microsoft or IBM PS/2 driver if you are using Windows. However, you can install the Touchscreen driver supplied with your computer to take advantage of more powerful features. (For information on installing the driver, see "How to Use the CD" in Chapter 6.)

Using the Floppy Disk Drive (option)

Your Tablet PC comes with an USB floppy disk drive as drive A through the USB port on the right side, or port replicator on an optional expansion box, or through the USB port located on the plug of an optional CD-ROM drive module.

A floppy disk drive allows you to install new programs into your computer, or to store information on a removable floppy disk so you can transfer information from one computer to another.



The floppy disk drive is a high-density 3.5-inch one, which can read and write to either double-density (2DD) 720-KB floppy disks or high-density (2HD) 1.44-MB floppy disks. Notice that both types of floppy disk have an arrow imprinted on the front upper left corner, and a sliding write-protect tab on the bottom left corner, as illustrated above. When opened, the write-protect tab prevents data from being written to, or erased from the floppy disk.

Connecting the Floppy Disk Drive

Connect the floppy disk drive through any of the following methods:

- **Through the Tablet PC's USB Port –**
  Insert the USB plug of floppy disk drive into the USB port located on the right side of the Tablet PC.

- **Through the Expansion Port Plug of the CD-ROM Drive Module –**
  Insert the USB plug of floppy disk drive into the USB port located on the expansion port plug of the CD-ROM drive module.

Inserting and Ejecting Floppy Disks

To insert a floppy disk, hold it with the arrow facing up and towards the drive. Slide the disk into the drive until it clicks into place.

To eject a floppy disk, first ensure that the floppy disk drive in-use indicator is off, and then press the eject button on the drive. When the floppy disk pops out of the drive, remove the floppy disk and store it properly.

CAUTION:

- Never turn off or reset the computer while the floppy disk drive in-use indicator is on.
- Always store your floppy disks in a safe, clean container, to protect them from the environment and magnetic fields.
- A floppy disk must be formatted before you can use it. (To know how to format a floppy disk, see your operating system manual.)

Using the Hard Disk Drive

Your computer comes with a hard disk drive as drive C.

A hard disk drive is a storage device with non-removable, rotating, magnetic storage platters inside it. It is where your operating system and application software programs are stored.

Your hard disk drive is a 2.5-inch IDE (Integrated Drive Electronics) hard disk drive. This type of drive embodies the latest in fast, reliable mass storage by integrating all the control circuitry necessary for operation directly onto the drive itself. This allows the drive manufacturer to carefully optimize drive performance.

CAUTION:

- Make regular backups of your data files from your hard disk drive to floppy disks or other storage media.
- Never try to remove or install the hard disk drive while the computer is powered on. Doing so can result in loss of data, and can damage the computer and the hard disk drive's sensitive circuitry.
- Never turn off or reset the computer while the hard disk drive in-use indicator is on.

Using the CD/DVD Drive (option)

Depending on the model, your computer comes with a CD-ROM drive or DVD-ROM drive module. This drive is usually configured as drive D and is connected to the expansion port located on the right side of the Tablet PC.

The drive uses removable 5.25-inch silver CD-ROM discs, which look like standard music CDs. It is an ideal medium to use for distributing multimedia because of the huge amount of data that a disc can store.

A CD-ROM drive can read CD-ROMs, audio CDs, and CD-R disk. A DVD-ROM drive can read DVD (Digital Versatile Disc) discs in addition to the above discs.

NOTE: If the DVD-ROM drive will be operating for more than half an hour (such as showing a DVD title), use the AC or car power source instead of the battery. If not, the battery may run out of power before the operation is complete.

CAUTION:
1. When inserting a CD, do not use force.
2. Make sure the CD is correctly inserted into the tray, and then close the tray.
3. Do not leave the CD tray open. Also, avoid touching the lens in the tray with your hand. If the lens becomes dirty, the CD-ROM may malfunction.
4. Do not wipe the lens using materials with rough surface (such as paper towel). Instead, use a cotton swab to gently wipe the lens.

FDA regulations require the following statement for all laser-based devices:
"Caution, Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure."

Connecting the CD/DVD Drive

Insert the expansion plug of CD/DVD drive into the expansion port located on the right side of the Tablet PC.

Inserting and Removing a CD

Follow this procedure to insert or remove a CD.

1. Turn on the computer.
2. Press the eject button and the CD tray will slide out partially. Gently pull on it until it is fully extended.
3. To insert a CD, place down the CD in the tray with its label facing up. Slightly press the center of the CD until it clicks into place.

To remove a CD, hold the CD by its outer edge and lift it up from the tray.

4. Gently push the tray back into the drive.

NOTE: In the unlikely event that you are unable to release the CD tray by pressing the eject button, you can manually release the CD. (See “CD/DVD Drive Problems” in Chapter 8.)

Using the Video Features

The video subsystem of your computer features:

- 10.4-inch TFT (Thin-Film Transistor) 18-bit color LCD display with 1024x768 XVGA (Extended Video Graphics Array) resolution.
- Simultaneous display on LCD and external monitor, which is useful when you have a presentation as you can control the screen from your computer and face the audience at the same time.
- Multi-display capability, which allows you to expand your desktop on the screen to another display device so that you have more desktop space to work on.
- Power Management.

Configuring the Display Modes

> NOTE: To take advantage of the enhanced video capabilities, the video driver supplied with your computer must be installed.

Your computer has been set to a default resolution and number of colors before shipment. You can view and change display settings through your operating system. See your operating system documentation or online help for specific information.

For displaying in higher resolutions, you can connect an external CRT monitor that supports higher resolutions. (See "Connecting a Monitor" in Chapter 4 for more information.)

The following table lists the display modes supported by your computer.

Display Mode		LCD Only	CRT Only	Simultaneous Display
Resolution	**Colors**			
640x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
720x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
800x600	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
848x480	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
1024x768	8-bit	√	√	√
	16-bit	√	√	√
	24-bit	√	√	√
	32-bit	√	√	√
1152x864	8-bit		√	
	16-bit		√	
	24-bit		√	
	32-bit		√	

Display Mode		LCD Only	CRT Only	Simultaneous Display
1280x1024	8-bit		√	
	16-bit		√	
	24-bit		√	
1600x1200	8-bit		√	
	16-bit		√	

TABLE NOTE: 8-bit = 256 colors; 16-bit = High Color or 65,536 (64 K) colors; 24 and 32-bit = True Color 16,770,000 (16 M) colors.

Using the Audio Features

NOTE:
- To take advantage of the enhanced audio capabilities, the audio driver supplied with your computer must be installed.
- If you experience interference while recording, try lowering the microphone recording volume.

The audio subsystem of your computer features:

- Digital audio and analog mixing functions required for recording and playing sound on your computer
- SoundBlaster Pro, Adlib, and Microsoft Windows Sound System support
- Volume control select (❶)
- Volume adjust (increase or decrease) (❷)
- Speaker (❸)
- External audio connectors (❹)

Ways of playing and recording sound vary with the operating system used. See your operating system documentation or online help for specific information.

Connecting Audio Devices

For higher audio quality, you can send or receive sound through external audio devices.

- **Microphone Connector** ( ) can be connected to an external microphone for recording voice or sound.
- **Audio Output Connector** ( ) can be connected to the line-in connector of powered speakers with built-in amplifiers, headphones, or earphone set. This connector is compliant with S/PDIF (Sony/Philips Digital Interface). You can connect audio equipment with S/PDIF to the computer.

Using the Communication Features

Using the Modem

> NOTE: To take advantage of the modem feature, the modem driver supplied with your computer must be installed.

The internal 56 K fax/data modem allows you to use the telephone line to communicate with others by fax, email, or connect to an online service or bulletin board.

To connect the telephone line to the modem, connect the end nearest the core on the modem cable to the computer's RJ-11 connector and the other end to the telephone line.

NOTE:

- When using communication software, you may have to disable power management.
- Set the COM port of the modem to COM2.
- Set parameters such as modem speed (baud rate) and line type (pulse dialing or tone dialing).
- Do not enter Standby when using communication software.

CHAPTER 3

Managing Power

Your computer operates either on external AC power, car adapter, or internal battery power.

This chapter tells you how you can effectively manage power. To maintain optimal battery performance, it is important that you use the battery in the proper way.

The topics in this chapter include:

- What is an AC or car adapter
- How to charge the battery pack
- When and how to initialize the battery pack
- How to check the battery level
- How to replace the battery pack
- What happens when the battery is low and what actions to take
- What is Power Management
- How to save power

AC and Car Adapter

CAUTION:

- The AC and car adapter is designed for use with your computer only. Connecting the AC adapter to another device can damage the adapter.
- The AC power cord supplied with your computer is for use in the country where you purchased your computer. If you plan to go overseas with the computer, consult your dealer for the appropriate power cord.
- When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the computer. A reverse procedure may damage the AC adapter or computer.
- When unplugging the connector, always hold the plug head. Never pull on the cord.

The AC adapter serves as a converter from AC (Alternating Current) to DC (Direct Current) power because your computer runs on DC power, but an electrical outlet usually provides AC power. It also charges the battery pack when connected to AC power. The AC adapter operates on any voltage in the range of 100 ~ 240 V AC.

The car adapter serves as a converter from car battery to DC power. The cigarette lighter port of the car usually provides DC power. It also charges the battery pack when connected. The car adapter operates on any voltage in the range of 10.7 ~ 32 V DC.

NOTE: The battery pack cannot be charged when the input power of car adapter falls below 11.5 V DC.

Battery Pack

The battery pack is the internal power source for the computer. It is rechargeable using the AC or car adapter.

The operating time of a fully charged battery pack depends on how you are using the computer. When your applications often access peripherals, you will experience a shorter operating time.

> NOTE: Located on the bottom-side of the Tablet PC is the CCD USB port that contains a switch for turning off power coming from the internal primary battery. (Refer to "Bottom-side Components" on chapter 1 for the actual location.)

> CAUTION: Care and maintenance information for the battery is provided in Chapter 8. In addition to this chapter, be sure to read the "Battery Pack Guidelines" section in Chapter 8 as well.

Charging the Battery Pack

> NOTE:
> - Charging will not start if the battery's temperature is below 0°C (32°F) or above 40°C (104°F).
> - The charging process will stop and the Battery Charge Indicator flashes orange when the battery's temperature gets above 60°C (140°F). If this happens, the battery pack may be damaged, please contact your dealer.
> - During charging, do not disconnect the AC adapter before the battery has been fully charged; otherwise you will get a prematurely charged battery.

To charge the battery pack, connect the AC adapter to the computer and an electrical outlet. The Battery Charge Indicator (or) on the Tablet PC's Device Indicators appears to indicate that charging is in progress. You are advised to keep the computer power off while the battery is being charged. When the battery is fully charged, the Battery Charge Indicator disappears.

It takes approximately 90 minutes to charge the battery pack to 80% capacity and two or three more hours to fully charge the battery pack.

> CAUTION: After the computer has been fully recharged, do not immediately disconnect and reconnect the AC adapter to charge it again. Doing so may damage the battery.

Initializing the Battery Pack

You need to initialize a new battery pack before using it for the first time or when the actual operating time of a battery pack is much less than expected.

Initializing is the process of fully charging, discharging, and then charging. It can take several hours.

1. Make sure the computer power is turned off. Connect the AC adapter to fully charge the battery pack.
2. After the battery pack is fully charged, turn on the computer.
3. Disconnect the AC adapter and leave the computer on until the battery is fully discharged. The computer will shut down automatically.
4. Connect the AC adapter to fully charge the battery pack.

Checking the Battery Level

> NOTE: Any battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the computer.

By Operating System

You can check the approximate battery level using the battery meter function of the operating system. To read the battery level in Windows, click the icon on the taskbar. (Click the icon if the computer is using AC power.)

By Gas Gauge

The internal primary battery pack does not support the gas gauge display on the battery itself, but on the exterior side of the secondary battery pack (option) is a gas gauge for displaying the estimated battery charge. When the secondary battery pack is not installed in the Tablet PC and you want to know the battery charge, you can press the on/off switch with a pointed device to see the corresponding value of indicator segment that light green. The value of the corresponding green segment indicates the relative percentage of the battery charge. The battery pack is fully discharged when you see no segment glowing green.

On/Off Switch *Device Indicator Segment*

Replacing the Secondary Battery Pack

CAUTION:

- There is danger of explosion if the battery is incorrectly replaced. Replace the battery only with the computer manufacturer's optional battery packs. Discard used batteries according to the dealer's instructions.
- Do not attempt to disassemble the battery pack.

If you often rely on battery power for a long period of time while traveling, you may consider the purchase of an additional secondary battery pack from your dealer and keep it with you in a fully charged state as a backup.

To replace the battery pack, follow these steps:

1. Make sure the computer is not turned on or connected to AC power. However, the Tablet PC supports the battery hot-swap function, providing you the ability to replace the battery even during system on.
2. Carefully place the computer upside down.
3. Open the stand fully (❶).

4. Slide the release lever (❷) to the right and pull the battery pack out of its compartment (❸) by using your thumb and index finger.

5. Insert the new battery pack into the compartment and slide the release lever first to the right to accommodate it, then releasing it to the lock position.

Battery Low Signals and Actions

Battery Low occurs when the battery has approximately 10% of its charge remaining. The computer gives warning beeps and the Battery Charge Indicator (1 or 2) blinks to alert you to take actions.

NOTE: You can set up your threshold and signals of Battery Low under Windows.

Immediately save your data upon Battery Low. The remaining operating time depends on how you are using the computer. If you are using the audio subsystem, PC Card, hard or floppy disk drives, the battery might run out of charge very quickly.

Always respond to Battery Low by placing your computer on suspend-to-disk, turning off the computer, or connecting the AC or car adapter.

If you do not take any action and after two minutes' of warning beeps, the computer will automatically suspend-to-disk and turn off.

CAUTION:

- If the "Battery Low Warning Beep" item is disabled in the Setup Configuration Utility (SCU) program, the computer will not beep.
- If you are using a flash PC Card, do not access the card during battery low periods. This is because the access may take longer than the time it takes the battery to run out of charge, thus making your access to the card unsuccessful.
- If you fail to save your data when the battery completely runs out of charge, then you lose your data.

Power Management

Your computer supports APM (Advanced Power Management) and ACPI (Advanced Configuration and Power Interface) for power management. The power management feature allows you to reduce the power consumption for energy saving.

With an ACPI-compliant operating system such as Windows 98 and Windows 2000, power supply to different computer components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time.

In general, Windows' power management works in this way:

What…	When…
Power to the hard disk is turned off	When the hard disk has been idle for a set period.
Power to the display is turned off	When the display has been idle for a set period.
The computer enters Standby mode. The hard disk and display are turned off and the entire system consumes less power.	When the entire system has been idle for a set period.
The computer enters Suspend mode. (See the next subsection for more information.)	When you press the power button ⏻. *

* depends on your settings in Windows.

For detailed information on power management, see Windows' Help.

Suspend-to-Disk (Suspend mode)

NOTE: If your operating system does not support ACPI, you can use the computer's "Suspend-to-Disk" function, which is equivalent to Windows' Hibernation function. (See "Power Menu" in Chapter 5 for more information.)

Manual Power Management

You can manually initiate Suspend-to-disk mode at any time in one of two ways:

- Use the O/S that supports the Suspend function.
- Press down the power button ⏻ and release it in less than 4 seconds with the system on. Repeat the action to wake up the system under Suspend mode.

NOTE:
1. The suspend-to-disk partition may not exist on your hard disk. Check with your dealer to know if it exists. If there is no suspend-to-disk partition, you cannot use the Suspend-to-disk feature.
2. The OVMAKFIL utility allows you to create the suspend-to-disk partition. (Refer to section on “OVMAKFIL Utility” for information.)

Suspend-to-disk is a very useful feature. People frequently open many applications when they use computers. It takes some time to get all these applications open and running, and normally they all have to be closed before the system can be turned off.

When you use the Suspend-to-disk feature, you do not have to close the applications. The computer stores the state of your computer to a file on the hard disk and then shut down. The next time you turn on your computer, you return to exactly where you left off.

Power-Saving Tips

In addition to your computer's automatic power management, you can do your part to maximize the battery's operating time by following these suggestions.

- Do not disable Power Management.
- Decrease the LCD brightness to the lowest comfortable level.
- Disable the parallel and serial ports if no devices are connected to these ports. (See "Advanced Menu" in Chapter 5.)
- If you work with an application that uses the serial port or a PC Card, exit the application when you finish using it.
- If you have a PC Card installed, remove it when not in use. Some PC Cards drain power even while they are inactive.
- Turn off the computer when you are not using it.

CHAPTER 4

Expanding Your Computer

You can expand the capabilities of your computer by connecting other peripheral devices. When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter.

This chapter gives guidelines on installing and using these devices:

- Serial device
- IR device
- USB device
- PC Card

Connecting a Serial Device

Your computer has a serial port for connecting a serial device such as a serial mouse or modem.

Follow this procedure to connect a serial device:

1. Make sure the "COM1 Port" item is set properly in the SCU program. (See "Advanced Menu" in Chapter 5 for information.)
2. Make sure the computer is not turned on.
3. Plug the device cable to the serial port on the right side of the Tablet PC.
4. Turn on the computer.

NOTE: Portable modems that derive power through the serial port cannot be used with the Tablet PC. Instead, use a modem that is powered by its own internal battery or external AC power.

Connecting a USB Device

Your computer has one USB port on the right side for connecting USB devices such as digital camera, scanner, printer, modem, or mouse; and one CCD USB port at the bottom-side for connecting an optional CCD camera.

> NOTE: You can also use the USB port located on the Expansion Port plug of the optional CD-ROM drive module.

USB is specified to be an industry standard extension to the PC architecture. It supports "Plug and Play" technology so you can install and remove USB devices without turning off the computer. With its multiple connection capability, up to 127 devices can be connected in a daisy-chain configuration. In addition, you can use a USB hub that converts a single USB connector into multiple ports where USB devices can be connected.

To connect a standard USB device, simply plug the device cable to the USB port on the right side of the Tablet PC, or through the optional CD-ROM drive module's Expansion Port plug.

To connect an optional CCD camera, simply place the camera on top of the Tablet PC nearest the CCD USB port. Align and plug in the golden finger connector to the CCD USB port at the bottom-side of the Tablet PC and secure it in place with the built-in screw. Adjust the angle of the CCD camera according to your need.

Connecting an IR Device

Your computer has an IR (infrared) port for connecting an infrared-equipped device wirelessly such as a wireless keyboard/mouse, another computer, printer, or PDA (Personal Digital Assistant).

The infrared feature supports these standards:

For the front panel's IR port

- IR keyboard/mouse that supports Forward FK34PUS002 (US language) specification

For the left side's IR port

- IrDA 1.1 (FIR – Fast Infrared) with 9.6 Kbps to 4.0 Mbps transfer rate
- HPSIR – Serial Infrared mode

Follow this procedure to connect an IR device:

1. Under Windows, make sure that the IrDA Fast Infrared Port is set to HP HSDL-2300/3600. (See "How to Use the CD" in Chapter 6 for information.)
2. Make sure that the "COM2 Port" and its "Mode" items are set properly in the SCU program. (See "Advanced Menu" in Chapter 5 for information.)
3. When using the front panel's IR port:
   Place the wireless keyboard where its IR port faces the IR port of your computer within the effective range – within ±15-degrees vertical angle and within ±30-degrees horizontal angle at no greater than 3 meter distance.

When using the left side's IR port:
Place the transmitting device where its IR port faces the IR port of your computer within the effective range – within ±20-degrees vertical angle and within ±20-degrees horizontal angle at no greater than 0.8~1.0 meter distance.
Place the receiving device where the IR port of the Tablet PC faces its IR port within the effective range – within ±15-degrees vertical angle and within ±15-degrees horizontal angle at no greater than 0.8~1.0 meter distance.

4. To take advantage of the IR communications, you need a third party software.

NOTE: During infrared communication, take note of the following:
- Do not move the computer and IR device.
- Do not enter Standby mode.
- Do not use a cell phone or another IR device near the computer.
- Avoid strong light such as sunlight or fluorescent light.
- Disable the screen saver.

Using PC Cards

Your computer has one PC Card slot to accommodate one type II card.

ZV Port and CardBus Support

Your computer's PC Card slot supports CardBus and ZV (Zoomed-Video) Port specifications. CardBus is the 32-bit version of PC Card technology. It allows speeds of up to 133 Mbps at 33 MHz. Typical applications are SCSI host bus, graphic video, and high-speed network cards.

Inserting and Removing a PC Card

NOTE:
- Some PC Cards require additional system resources. Before using such PC card, you may have to free other system resources for the PC Card.
- Although some PC Cards can be inserted and removed without turning off the computer, you cannot remove or install PC Cards during Standby mode.

To insert a PC Card:

1. Locate the PC Card slot on the right side of the computer.
2. Slide the PC Card, with its label facing up, into the slot until the eject button pops out.

3. When a new card is seated, the computer will detect it and try to install the appropriate driver. Follow the on-screen instruction to complete the process.

To remove a PC Card:

1. Your operating system may require you to stop the PC Card before you actually remove it. (In Windows, double-click the **PC Card** icon in **Control Panel** to stop the card.)
2. Push the eject button and the card will slide out slightly.
3. Pull the card out of the slot.

System Memory Upgrade

You can upgrade your computer by changing system memory to a maximum of 128 MB on the SO-DIMM slot. However, to avoid damage during the installation procedure, please ask your dealer for help.

CHAPTER 5

Setup Configuration Utility (SCU)

SCU is a program for configuring the BIOS (Base Input/Output System) settings of the computer.

BIOS is a layer of software, called firmware, that translates instructions from other layers of software into instructions that the computer hardware can understand. The BIOS settings are needed by your computer to identify the types of installed devices and establish special features.

This chapter tells you how to use the SCU program.

When and How to Use the SCU Program

When to Use

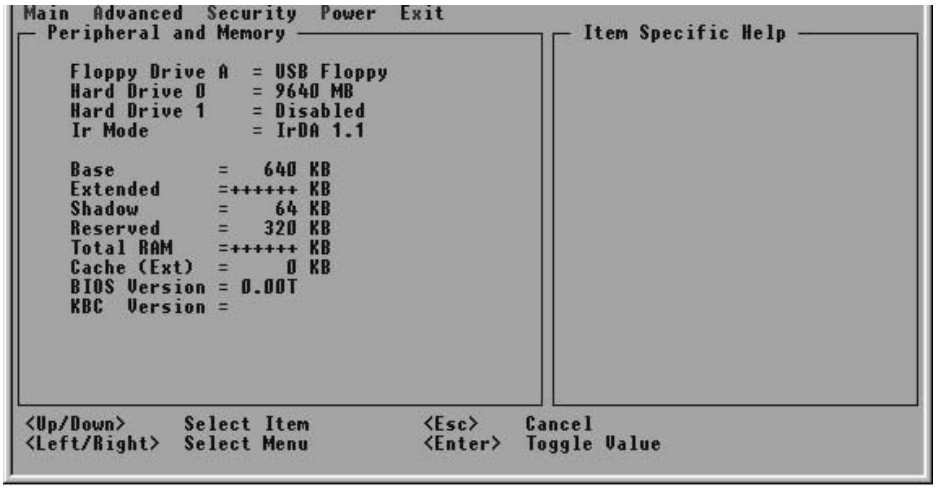
You need to run the SCU program when:

- You see an error message on the screen requesting you to run SETUP.
- You want to restore the factory default settings.
- You want to modify some specific settings according to the hardware.
- You want to modify some specific settings to optimize system performance.

Starting SCU

NOTE:
- The SETUP screens shown in this chapter are for your reference only. The actual items or settings on your computer may differ.
- The SETUP program may have been updated after the publication of this manual.
- The settings you select in your operating system might override similar settings in SETUP.

To run SCU, press F2 when the prompt appears in the lower left corner of the screen during system startup. The prompt shows up on the screen for only a few seconds. You must press F2 quickly. The SCU menu appears as shown next.



The menu can be divided into four areas:

- On the top line is the menu bar containing the titles of the available menus. Each menu title brings a specific menu.
- The center left column of the menu contains items that you can set for the selected menu title. The arrow sign in front of an item indicates there is a sub-menu for the item.
- The right column of the menu provides help information of the selected item.
- The bottom lines give keyboard instructions for moving around and making selections.

Moving Around and Making Selections

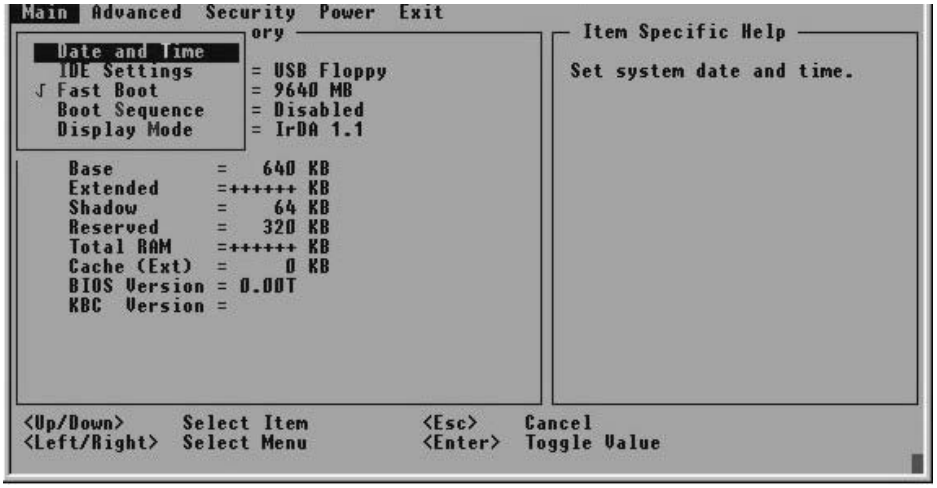
A brief description of keyboard (if installed) usage is listed next:

Key	Function
←, →	Selects a menu title.
↑, ↓	Selects an item or option.
Enter	1) Brings up the sub-menu when an item with the arrow sign is selected. 2) Opens or closes the options window when an item is selected.
Space bar, –	Cycles through the pre-defined value for the selected item. Pressing the space bar brings up the next value; pressing the minus (–) key does the contrary.
Esc	1) Exits the SCU program. 2) Returns to the previous menu if in a sub-menu. 3) Closes the options window if one is open.

NOTE: You are advised to use the mouse (if installed) as it is more straightforward than using the keyboard.

Main Menu

The Main menu contains the basic configuration settings of the system.



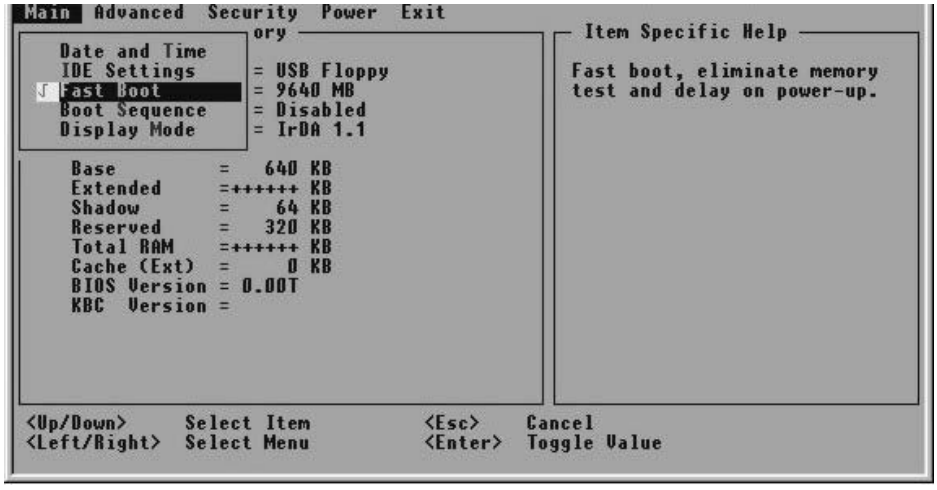
Date and Time

Sets the system time (Hour, Minute, Second) and date (Month, Day, Year).

IDE Settings

Sets the type of hard disk drive installed in your system.

Fast Boot

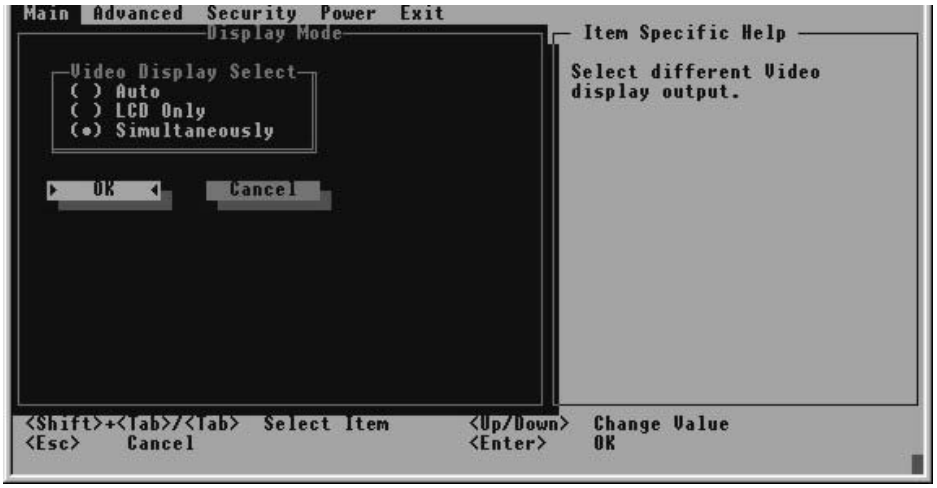


When enabled, speeds up the booting procedure by bypassing the memory test. A check mark indicates enabled, while underline indicates disabled.

Boot Sequence

Sets the first, second, and third boot device. The system will try to boot from the first device but if it is not available, will try the next boot device.

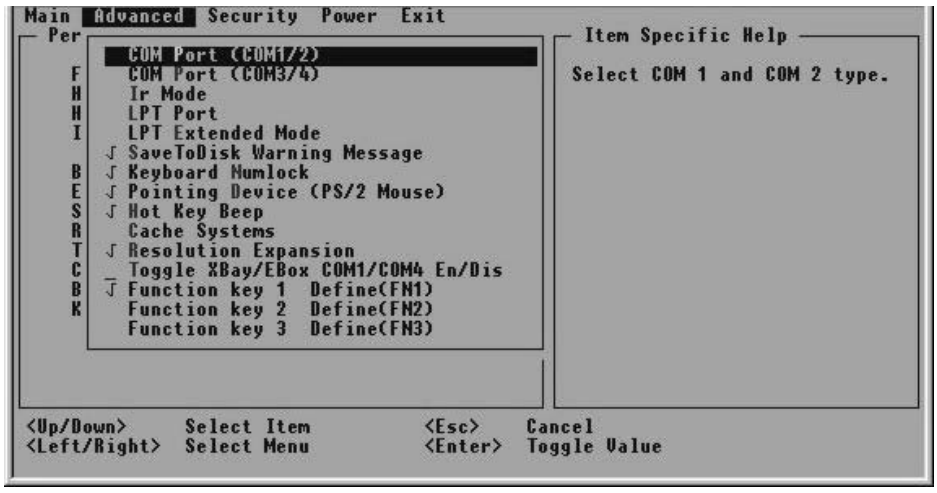
Display Mode



Sets the display output device.

Advanced Menu

The Advanced menu contains the input/output configuration settings of the system.



COM Port (COM1/2)

Allows you to assign COM1 and COM2 to specific functions that you wish to use. In general, COM1 can be assigned to *RS-232C* (serial port) while COM2 can be assigned to *IR* (infrared). Select *Disabled* if you need the resources (3F8/IRQ4 of COM1 and 2F8/IRQ3 of COM2) for other devices.

COM Port (COM3/4)

Allows you to assign COM3 and COM4 to specific functions that you wish to use. In general, COM3 can be assigned to *RS-232C* (serial port) or touchscreen, while COM4 can be assigned to *RS-232C*. Select *Disabled* if you need the resources (3E8/IRQ5 of COM3 and 2E8/IRQ7 of COM4) for other devices.

Ir Mode

Sets the communication compatibility mode for the IR port. Select according to the type of device with which the Tablet PC is to communicate with.

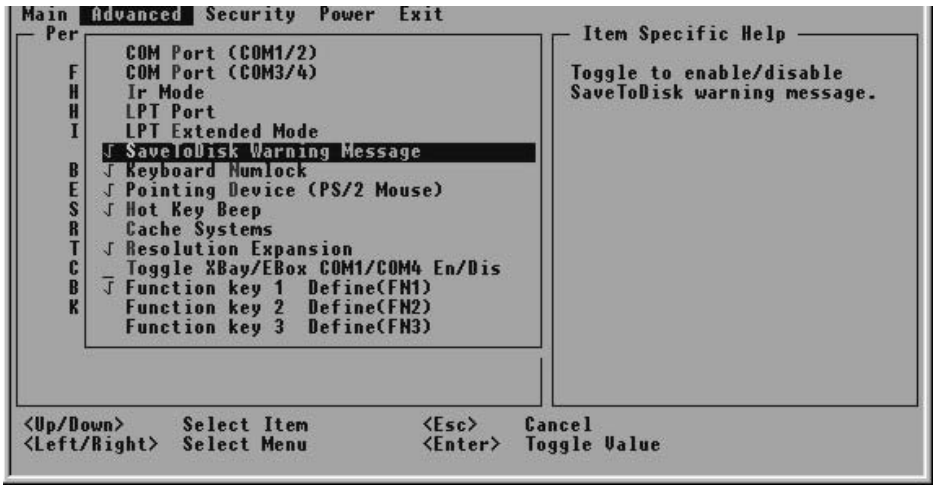
LPT Port

Sets the address for the LPT port (parallel port).

LPT Extended Mode

Sets the LPT port (parallel port) mode supported by the parallel device you are using. Your system supports EPP (Enhanced Parallel Port) and ECP (Extended Capabilities Port) standards that turn the standard parallel port into a high-speed bi-directional peripheral port.

SaveToDisk Warning Message



Sets if a warning message will appear after system power on when there is no Suspend-to-disk partition on the hard disk. A check mark indicates enabled, while underline indicates disabled.

Keyboard Numlock

Sets if the numeric keypad will function. A check mark indicates enabled, while underline indicates disabled.

Pointing Device (PS/2 Mouse)

Enables or disables the external PS/2 mouse. Disable this option if you are using a serial mouse. A check mark indicates enabled, while underline indicates disabled.

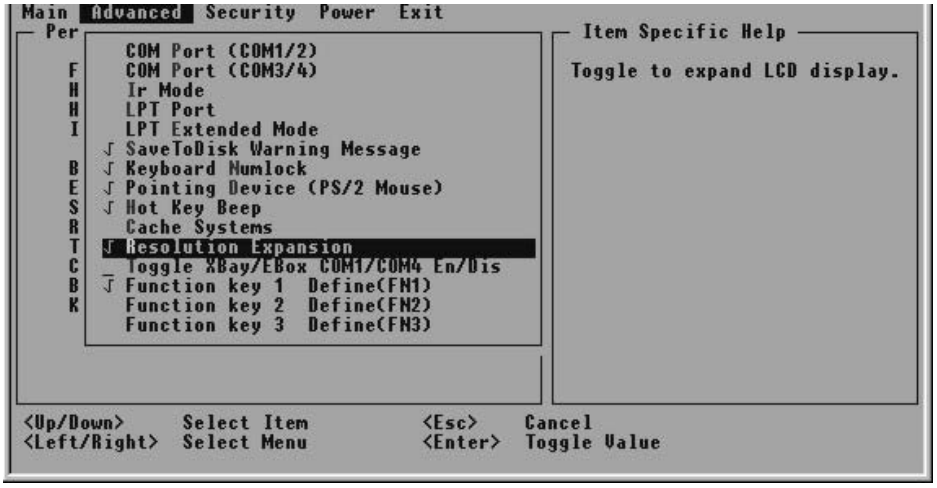
Hot Key Beep

Enables or disables the beep sound when any hot-key is pressed.

Cache Systems

Enables or disables the cache memory of your system: L1 cache (CPU internal cache) and L2 cache (external cache). Cache memory enhances system performance because the most frequently used data is accessed from and written to the high-speed cache memory. For stable system performance, you are not advised to change the default settings.

Resolution Expansion



Allows you to expand the LCD display.

Toggle XBay/EBox COM1/COM4 En/Dis

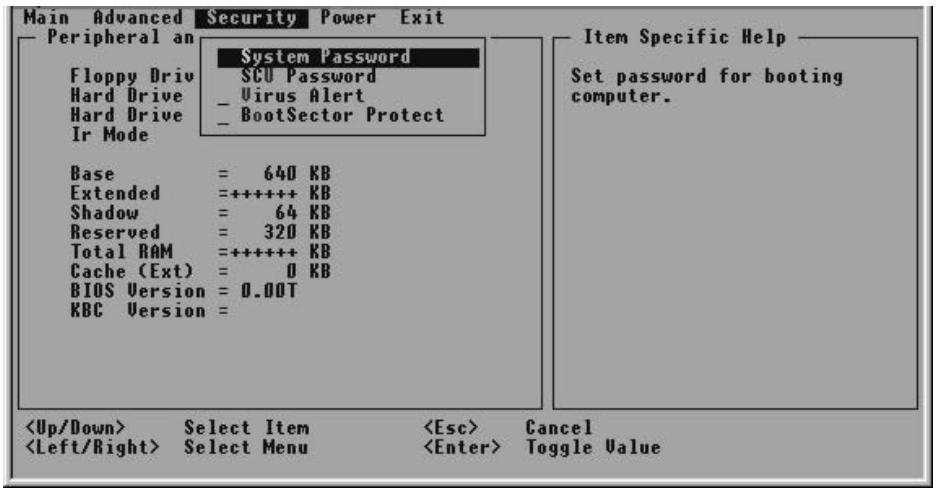
When this item enabled, COM1/COM4 on the X-Bay is enabled while COM1/COM4 on the Expansion Box Port Replicator module is disabled. When disabled, COM1/COM4 on the Expansion Box Port Replicator module is enabled while COM1/COM4 on the X-Bay is disabled. A check mark indicates enabled, while underline indicates disabled.

Function Key 1 Define (FN1)
Function Key 2 Define (FN2)
Function Key 3 Define (FN3)

These 3 items allow user to define the corresponding function key associated with the 3 function buttons (FN1, FN2, FN3) found on the front panel.

Security Menu

The Security menu contains the security setting that safeguards your system against unauthorized use.



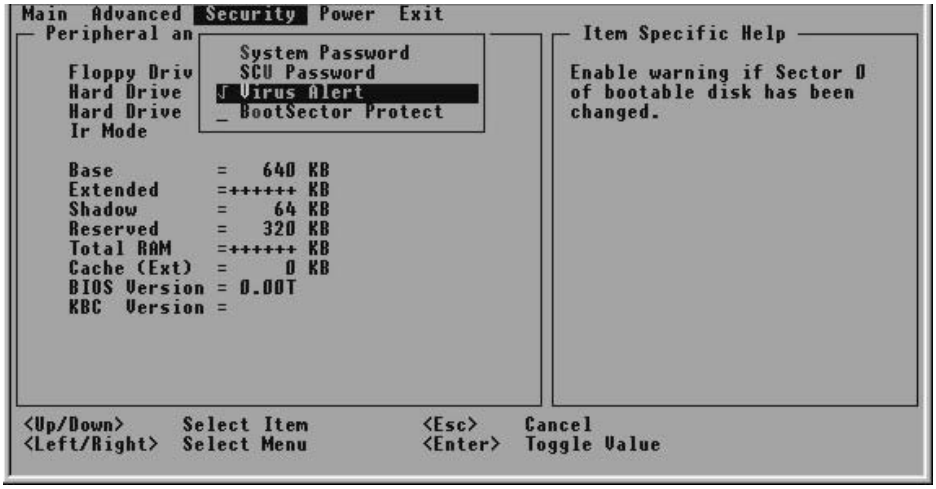
System Password

Sets the system password. A password is required for starting up the system and running the SCU program. When setting password, make sure that NumLock is off, then type the password in the entry field and press Enter. Confirm your password by typing it again and pressing Enter. For the password to take effect, enable the **Enable Password** item.

SCU Password

Sets the SETUP password. A password is required for running the SCU program. When setting password, make sure that NumLock is off, then type the password in the entry field and press Enter. Confirm your password by typing it again and pressing Enter. For the password to take effect, enable the **Enable Setup Password** item.

Virus Alert



Gives a warning message when the hard disk boot sector (partition table) is about to be changed. A check mark indicates enabled, while underline indicates disabled.

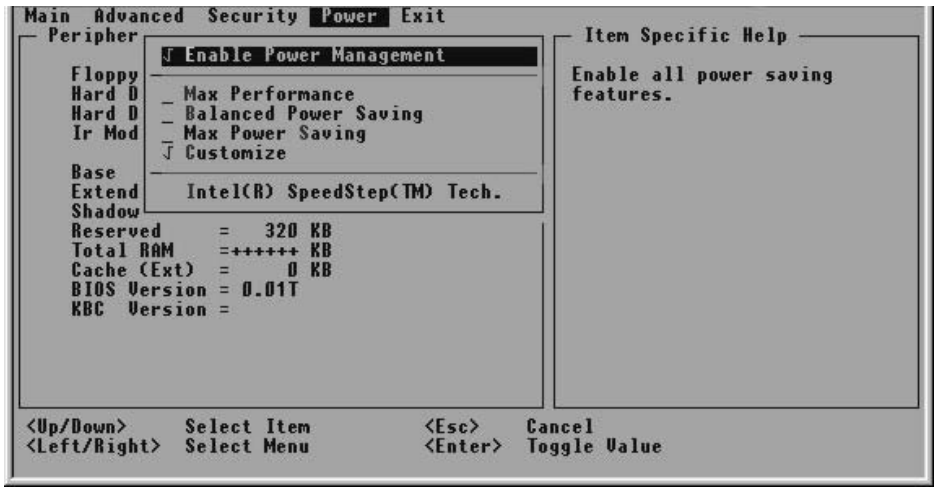
BootSector Protect

Helps prevent infection of computer viruses by protecting the hard disk boot sector (partition table) from changes. A check mark indicates enabled, while underline indicates disabled.

> CAUTION: Disable this item before installing an operating system, running Fdisk or Format program. Otherwise, the intended action will fail.

Power Menu

The Power menu contains the power management settings that help save system power.



Enable Power Management

Serves as the master control for the power management feature. A check mark indicates enabled, while underline indicates disabled.

Max Performance
Balanced Power Saving
Max Power Saving
Customize

You can only select one of them. A check mark indicates enabled, while underline indicates disabled.

Max Performance	Allows maximum system performance but shortest battery life.

Balanced Power Saving	Allows moderate system performance and moderate battery life.
Max Power Saving	Allows the longest battery life but minimum system performance.

NOTE: The predefined settings of the aforementioned options are viewed in the next item.

Customize

NOTE: All items except Battery Low Warning Beep do not work in ACPI-compliant operating systems such as Windows 98, Windows Me, and Windows 2000.

Sets your own preference for the various power management settings.

Hard Disk Power Down After sets the time period of inactivity before the hard disk will power down. The hard disk will power up again when next accessed.

Standby After sets the time period of inactivity before entering Standby mode. When Standby mode is in effect, several system subsystems go into standby or off mode so that power use is reduced. The system will wake up from Standby mode when activity is detected.

Suspend After sets the time period of inactivity before entering Suspend mode. It works in tandem with the previous item **Standby After**. After the system enters Standby mode, it will start the timeout period before system enters Suspend mode. What happens next upon entering Suspend mode is determined by the next item **Suspend Data to**.

Suspend Data to allows you to choose between suspending data to RAM or to disk. When *RAM* is selected, system will save data to DRAM and stay in the lowest power state. The system will wake up when any key is pressed, or the succeeding items **Resume on Time** or **Resume on Modem/LAN** is enabled. When *Disk* is selected, system will save the data to the "suspend-to-disk" partition on the hard disk (check your hard disk drive if it is available) and power off. When you next power on the system preserves the exact state when you last enter Suspend mode.

Battery Low Warning Beep allows the system to issue warning beeps when it enters a low battery state.

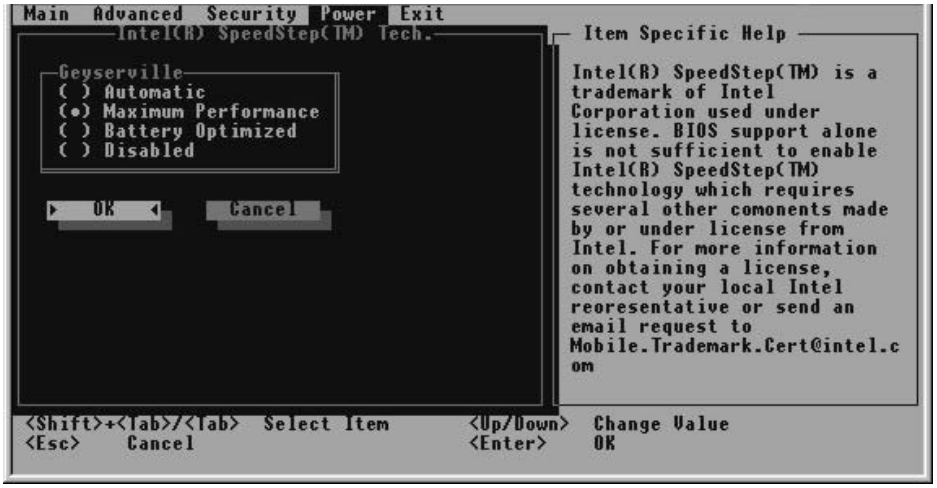
VGA Activity as a means of entering power management is not available if any video activity (e.g., screen savers) is detected. When enabled, power management will not take effect if any VGA activity is detected. When disabled, power management will ignore any VGA activity.

Resume on Time allows you to set the time when the system will wake up upon entering Suspend mode and the **Suspend Data to** item is set to *RAM*.

Hour/Minute/Second allows you to set the specific time period to wake up the system if the previous item **Resume on Time** is enabled. Enter the value in each field by typing the number.

Resume on Modem/LAN allows you to wake up the system when the modem receives an incoming call or LAN activity is detected upon entering Suspend mode and the **Suspend Data to** item is set to *RAM*.

Intel® SpeedStep™ Tech.

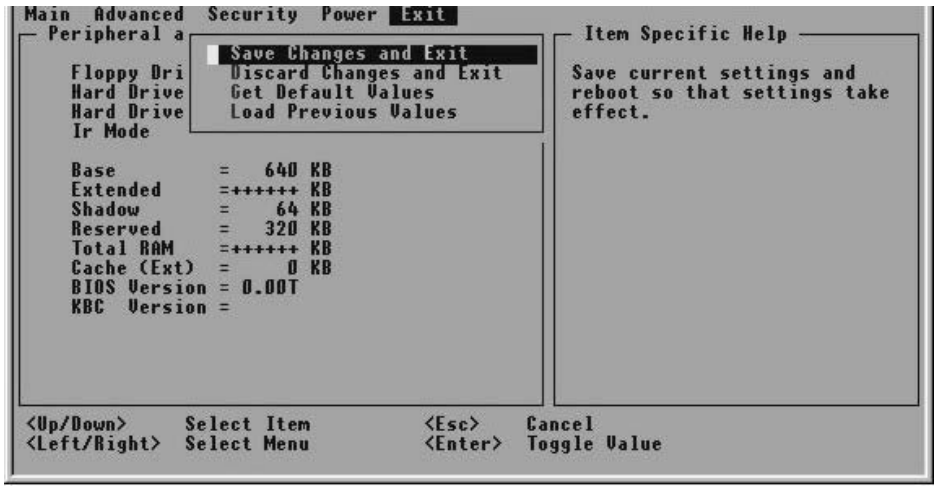

Main Advanced Security Power Exit
Intel(R) SpeedStep(TM) Tech.
Item Specific Help
Geyserville
( ) Automatic
(•) Maximum Performance
( ) Battery Optimized
( ) Disabled
OK
Cancel
Intel(R) SpeedStep(TM) is a trademark of Intel Corporation used under license. BIOS support alone is not sufficient to enable Intel(R) SpeedStep(TM) technology which requires several other comonents made by or under license from Intel. For more information on obtaining a license, contact your local Intel reoresentative or send an email request to Mobile.Trademark.Cert@intel.com
<Shift>+<Tab>/<Tab> Select Item
<Up/Down> Change Value
<Esc> Cancel
<Enter> OK

This item is only available if the CPU you are using supports the Intel® SpeedStep™ function. You can only select one of them.

Automatic	Allows maximum CPU performance when using AC/car power but minimum CPU performance when using battery power.
Maximum Performance	Allows maximum CPU performance regardless of power source.
Battery Optimized	Allows minimum CPU performance regardless of power source.
Disabled	Intel® SpeedStep™ function is disabled.

Exit Menu

The Exit menu allows you to leave the SCU program. After finished with your settings, you must save and exit so that the new settings can take effect.



Save Changes and Exit saves the changes you have made and exit the SCU program.

Discard Changes and Exit exits the SCU program without saving the changes you have made.

Get Default Values loads factory default values for all the items.

Load Previous Values restores previous values for all the items.

CHAPTER 6

Installing Software Drivers

To take full advantage of the unique features of your Tablet PC, some operating systems require custom software, known as drivers, to be installed.

If you purchased the Tablet PC with Windows pre-installed, your dealer may have already installed the drivers. If not, you need to install the drivers using the CD supplied with your Tablet PC.

This chapter describes how to install the drivers.

How to Use the CD

NOTE:
- The drivers may have been updated after this manual was published. For drivers upgrade, please contact your dealer.
- You can always find README or document files on the CD. These files contain the latest information from the software supplier. Please read the files together with this chapter.

NOTE:
- This CD supports Windows 98, Windows 2000, and Windows NT 4.0. Other systems are not supported.
- The available items may differ according to your computer model and operation system.
- If you want to play MIDI file under WinNT, please install Software Table under "d:\NT40\Audio\Cwave01_14."

You can set up the following drivers from the CD:

- Mitsumi USB Floppy driver

NOTE: If you are using Windows 2000, you will not need to install this driver. Windows NT does not support USB device.

- ATI VGA driver
- Crystal Audio driver
- Askey MDC (modem) driver
- Realtek LAN driver
- Alps Touchscreen driver
- FIR driver

NOTE: If you are using Windows 2000, you will not need to install this driver. Windows NT 4.0 does not support FIR.

- Card Wizard driver

NOTE: If you are using Windows 98 or Windows 2000, you will not need to install this driver.

- Power Profile driver

NOTE: If you are using Windows 98 or Windows 2000, you will not need to install this driver.

Please refer to the Readme file on the CD for the installation instructions.

Other Drivers and Utilities

0VMAKFIL Utility

> CAUTION: Check with your dealer to find out if the Suspend-to-disk file (partition) is already created. If it is not created and you want to create the Suspend-to-disk file by yourself, make sure that your hard disk is empty. That is, your hard disk has not been partitioned by the FDISK program. If any partition exists, you have to use the FDISK program to delete all partitions before you can use the 0VMAKFIL utility.

The 0VMAKFIL.EXE utility program allows you to create in your hard disk the Suspend-to-disk file (partition), which is required for the Suspend-to-disk function of your Tablet PC.

Follow these steps to create the suspend-to-disk partition:

1. Boot your system by CD-ROM.
2. Now you can run the 0VMAKFIL program under the Utility directory on the CD, following this command syntax:

   0VMAKFIL -P*nn*

where *nn* specifies the size (in MB) of the partition.

You can have the size larger than your current system memory size for future upgrade of your memory. If you do not specify the parameter, the default size will be your system RAM plus 4 MB. The extra 4 MB is for the overhead of the program and data held in video memory.

You can clear the contents of the partition using the **0VMAKFIL -C** command. The command is useful only when you are backing up the data in the hard disk drive.

CHAPTER 7

Caring for the Tablet PC

Taking good care of your computer will ensure a trouble-free operation and reduce the risk of damage to your computer.

This chapter gives you guidelines covering these areas of maintenance:

- How to protect the computer
- What to note when using and storing the computer
- How to clean the computer
- What to note when using the battery pack
- What to note when traveling with the computer

Protecting the Computer

To safeguard the integrity of your computer data as well as the computer itself, you can protect the computer in several ways as described in this section.

Using the Password

The power-on password protects your computer against unauthorized use. If the password is set, the prompt requesting for the password appears on the screen whenever the computer is turned on.

The password is set via the SCU program. See “Security Menu” in Chapter 5 for instructions.

Using an Anti-Virus Strategy

New viruses are always being developed nowadays and they are attacking computers even more easily with emails so commonly used worldwide.

The Security feature of the SCU program protects the boot sector of the hard disk. To enable the function, see “Security Menu” in Chapter 5 for instructions.

You can also install a virus-detecting program to monitor potential viruses that could damage your files.

Taking Care of the Tablet PC

Location Guidelines

- Use the computer where the temperature is between 10°C (50°F) and 35°C (95°F).
- Avoid placing the computer in a location subject to high humidity, extreme temperatures, mechanical vibration, direct sunlight, or heavy dust.
- Do not cover or block any ventilation openings on the computer. For example, do not place the computer on a bed, sofa, rug, or other similar surface. Otherwise, overheating may occur that results in damage to the computer.
- Keep the computer at least 13 cm (5 inches) away from electrical appliances that can generate a strong magnetic field such as a TV, refrigerator, motor, or a large audio speaker.
- Do not move the computer abruptly from a cold to a warm place. A temperature difference of more than 10°C (18°F) will cause condensation inside the unit, which may damage the storage media.
- Do not place the computer on an unsteady surface.

General Guidelines

- Do not place heavy objects on top of the Tablet PC as this may damage the display.
- The screen surface is easily scratched. Do not use paper towels to clean the display. Avoid touching it with a ballpoint pen or pencil.
- To maximize the life of the backlight in the display, allow the backlight to automatically turn off as a result of power management. Avoid using a screen saver or other software that prevents the power management from working.

Cleaning Guidelines

- Never clean the computer with its power on.
- Use a soft cloth moistened with water or a non-alkaline detergent to wipe the exterior of the computer.
- Gently wipe the display with a soft, lint-free cloth. Do not use alcohol or detergent on the display.
- Dust on the IR port can interfere with data transfer. Wipe the port with a soft, dry cloth.
- Dust or grease on the touchscreen can affect its sensitivity. Clean the touchscreen by using adhesive tape to remove the dust and grease on its surface.

Battery Pack Guidelines

- Recharge the battery pack when it is nearly discharged. When recharging, make sure the battery pack is fully charged. Doing so may avoid harm to the battery pack.
- Operate the computer with the battery pack installed even when using external power. This ensures that the battery is fully charged.
- If you will not be using the computer for a long period of time (more than two weeks), remove the battery pack from the computer.
- If you remove the battery pack, make sure the battery terminals do not contact any conductors such as metal objects or water. Otherwise, the battery may become unusable as a result of a short circuit.
- If you need to store the battery pack, store it in a cool, dry place. Never allow the temperature to exceed 60°C (140°F).
- Do not leave the battery pack in storage for more than 6 months without recharging it.

When Traveling

- Before traveling with your computer, make a backup of your hard disk data into floppy disks or other storage devices. As an added precaution, bring along an extra copy of your important data.
- Make sure the battery pack is fully charged.
- Make sure the computer is turned off.
- Do not leave objects that will press onto the display.
- Disconnect the AC adapter from the computer and take it with you. Use the AC adapter as the power source and as a battery-charger.
- Hand-carry the computer. Do not check it in as luggage.
- Allow extra time for airport security. Many airports inspect electronic devices carefully.
- If you need to leave the computer in the car, put it in the trunk of the car to avoid exposing the computer to excessive heat.
- When going through airport security, it is recommended that you send the computer and floppy disks through the X-ray machine (the device you set your bags on). Avoid the magnetic detector (the device you walk through) or the magnetic wand (the hand-held device used by security personnel).
- If you plan to travel abroad with your computer, consult your dealer for the appropriate AC power cord for use in your country of destination.

CHAPTER 8

Troubleshooting

Hardware, software, or a combination of both can cause computer problems. When you encounter any problem, it might be a typical problem that can easily be solved.

This chapter tells you what actions to take when solving common computer problems. It is divided into three sections:

- Preliminary checklist
- Solving common problems
- Resetting the computer

Preliminary Checklist

Here are helpful hints to follow before you take further actions when you encounter any problem:

- Try to isolate which part of the computer is causing the problem.
- Make sure that you turn on all peripheral devices before turning on the computer.
- If an external device has a problem, make sure that the cable connections are correct and secure.
- Make sure that the configuration information is properly set in the SCU program.
- Make sure that all the device drivers are correctly installed.
- Make notes of your observations. Are there any messages on the screen? Do any indicators light? Do you hear any beeps? Detailed descriptions are useful to the service personnel when you need to consult one for assistance.

If any problem persists after you follow the instructions in this chapter, contact an authorized dealer for help.

Solving Common Problems

For easy reference, the problems are divided into these categories.

Problem Type	Go to
Battery problems	P. 8-4
CD/DVD drive problems	P. 8-4
Display problems	P. 8-5
Floppy disk drive problems	P. 8-7
Hardware device problems	P. 8-8
Hard disk drive problems	P. 8-8
Infrared problems	P. 8-9
Keyboard and mouse problems	P. 8-9
LAN problems	P. 8-10
Modem problems	P. 8-10
PC Card problems	P. 8-11
Power Management problems (for Windows)	P. 8-11
Printer problems	P. 8-12
Software problems	P. 8-12
Sound problems	P. 8-13
Startup problems	P. 8-14
Other problems	P. 8-15

Battery Problems

The battery does not charge (Battery Charge indicator does not appear).

- Make sure that the AC adapter is properly connected.
- Make sure that the battery is not too hot – gets above 40°C (104°F) or too cold – below 0°C (32°F). Allow time for the battery pack to return to room temperature.
- Make sure that the battery pack is installed correctly.
- Make sure that the battery terminals are clean.

The operating time of a fully charged battery becomes shorter.

- If you often partially recharge and discharge, the battery might not be charged to its full potential. Initialize the battery to solve the problem. (See "Initializing the Battery Pack" in Chapter 3 for instructions.)
- Make sure that power to the Tablet PC is off. If you use the Tablet PC during recharging for more than 4 hours, the recharging will stop no matter whether the battery has been fully charged or not. If this happens, you can disconnect and then reconnect the AC adapter to start the recharging again.

The battery operating time indicated by the battery meter does not match the actual operating time.

- The actual operating time can be different from the estimated time, depending on how you are using the computer. If the actual operating time is much less than the estimated time, initialize the battery. (See "Initializing the Battery Pack" in Chapter 3 for instructions.)

CD/DVD Drive Problems

The CD/DVD drive cannot read a CD.

- Make sure that the CD is correctly seated in the tray, with the label facing up.

- Make sure that the CD is not dirty. Clean the CD with a CD cleaning kit, available in most computer stores.
- Make sure that the CD/DVD drive driver is installed correctly.
- Make sure that the computer supports the CD or the file format contained.

You cannot eject a CD.

- The CD is not properly seated in the drive. Manually release the CD following the method described next:

  Turn off the system.

  Insert a small rod, such as a straightened paper clip, into the drive's manual eject hole and push firmly to release the tray.

  Pull the tray out until fully extended, and then remove the CD.

Display Problems

Nothing appears on the screen.

- If the power-on indicator is not on, check the electrical outlet, the plugs and power cords.
- If the power button ⏻ does not respond to a light touch, press the button firmly.
- If you are using the battery power, make sure that it has a charge remaining and that it is installed correctly.
- During operation, the screen may automatically turn off as a result of power management. Press any key to see if the screen comes back.
- The brightness level might be too low. Increase brightness by pressing on the brightness/volume control button on the front panel of the Tablet PC.
- The display output might be set to an external monitor.
- Reset the Tablet PC by pressing the reset button on the right side of the computer or by pressing Ctrl+Alt+Del keys if you are using an external keyboard.

- Try turning the computer off, wait a few seconds, then turn it back on.

The characters on the screen are dim.

- Adjust the brightness.

Bad dots appear on the display at all times.

- A small number of missing, discolored, or bright dots on the screen are an intrinsic characteristic of TFT LCD technology. It is not regarded as a LCD defect. The Inspection Standard generally agreed in the LCD industry allows a maximum of 8 pixels on a unit.

Term definition:

Bright dots	When the LCD screen is lighted, dots appear bright at a dark area. Red/green/blue bright dots also count.
Dark dots	When the LCD screen is lighted, dots appear black at bright areas.
Distance between defective dots	The minimum distance between two defective dots.
Adjacent defective dots	Defective dots within a radius of 10 mm.

LCD Type	Defective dots		Distance between defective dots		Two adjacent defective dots		Three or more adjacent defective dots		Total
	Bright	Dark	Bright	Dark	Bright	Dark	Bright	Dark	
12.1" SVGA	N≤5	N≤5	≤15mm	≤15mm	≤2 Pairs	≤2 Pairs	Not allowed	Not allowed	N≤8
13.3" XGA	N≤5	N≤7	≤15mm	≤15mm	≤2 Pairs	≤2 Pairs	Not allowed	Not allowed	N≤9
14.1" XGA	N≤5	N≤7	≤15mm	≤15mm	≤2 Pairs	≤2 Pairs	Not allowed	Not allowed	N≤9
15" XGA	N≤8	N≤8	≤15mm	≤15mm	≤2 Pairs	≤2 Pairs	Not allowed	Not allowed	N≤10
18" XGA	N≤9	N≤15	≤5mm	≤20mm	≤3 Pairs	≤5 Pairs	Not allowed	Not allowed	N≤20

Resolution cannot be adjusted to desired setting.

- Make sure that the video driver is installed correctly.

The external monitor displays nothing.

- Make sure that the monitor is turned on.
- Make sure that the monitor's signal cable is properly connected.
- Check if the Setup item **Display Mode** on the Main menu of the SCU program is configured correctly.

Simultaneous display does not work.

- Make sure that you turn on the external monitor before turning on the computer.
- Check the Setup item **Display Mode** on the Main menu of the SCU program is configured correctly.

Floppy Disk Drive Problems

The Floppy Disk Drive In-use Indicator stays on.

- Make sure that the floppy disk is not physically damaged.
- Make sure that the floppy disk is inserted correctly.

The disk drive cannot write to a floppy disk.

- Make sure that the floppy disk is formatted.
- Make sure that the floppy disk is not write-protected.
- Make sure that you are writing to the correct drive.
- Make sure that there is enough space left on the floppy disk.
- Make sure that the floppy disk is not physically damaged.

The disk drive cannot read a floppy disk.

- Make sure that the floppy disk is formatted.
- Make sure that you are reading the correct drive.

Hardware Device Problems

The computer does not recognize a newly installed device.

- The device may not be correctly configured in the SCU program. Run the SCU program to identify the new type.
- Make sure if any device driver needs to be installed. (Refer to the documentation that came with the device.)

- Make sure if the device needs any jumper or switch settings. (Refer to the documentation that came with the device.)
- Check the cables or power cords for correct connections.
- For an external device that has its own power switch, make sure that the power is turned on.

Hard Disk Drive Problems

The hard disk drive error message appears on the screen.

- Insert a bootable diskette and check the integrity of your hard drive.
- The hard disk drive has defects. Ask your dealer for help.

The hard disk drive operations seem slow.

- The data files stored on the hard disk drive may be fragmented. Use a tool such as Window's **Disk Defragmenter** to defragment the files.

The hard disk drive in-use indicator glows without blinking.

- The data files stored on the hard disk drive may be fragmented. Use a tool such as Window's **Disk Defragmenter** to defragment the files.

Infrared Problems

The IR port does not work.

- Make sure that the IR ports of the two device face each other within a ±15-degrees angle and 1 meter (3 feet) distance and there are no obstructions in between.
- Make sure that the device connected is using an equivalent speed.
- Make sure that the IrDA Fast Infrared Port is set to HP HSDL-2300/3600.
- Make sure that the IR port is set correctly in the SCU program.
- If you are printing to an infrared printer, make sure that the appropriate driver is installed.

- If you are using any file transfer functions, make sure that both the computer and the IR device have the appropriate software running.
- Make sure that there is no device radiating infrared rays, such as remote-controlled devices or wireless headphones, near the computer or device.
- Make sure that no direct sunlight or fluorescent lamps are near the computer or device.
- Make sure that the IR ports are clean.

Keyboard and Mouse Problems

The keyboard does not respond.

- Try connecting another external keyboard. If it works, replace the former keyboard as it may be defective.

The numeric keypad is disabled.

- Make sure that the Num Lock is switched on. (Check if the Num Lock Indicator 1 appears or not.)

The external keyboard does not work.

- Make sure that the keyboard cable is properly connected.

The PS/2 mouse does not work.

- Make sure that the mouse cable is properly connected.
- Make sure that the pointing device is enabled in the SCU program.

The serial mouse does not work.

- Make sure that the mouse cable is properly connected.
- Make sure that you connect the mouse before booting the computer.
- Make sure that the serial port is enabled in the SCU program.

LAN Problems

I cannot access the network.

- Make sure that the LAN driver is correctly installed.
- Make sure that the LAN cable is properly connected to the RJ-45 connector and the network hub.
- Make sure that the network configuration is appropriate.
- Make sure that the user name or password is correct.

Modem Problems

The modem does not work.

- Make sure that the modem driver is correctly installed.
- Make sure that the telephone line is properly connected.
- Make sure that the COM port in the communication software is correctly set.
- Turn off power management.

PC Card Problems

The PC Card does not work.

- Make sure that the PC Card is correctly seated.
- If the card requires an IRQ (interrupt request), make sure that there is one available.
- The PC Card may be attempting to use COM3 or COM4 ports in a manner that conflicts with the COM1 or COM2 port being used by another device. Try running the SCU program to change the COM port setting. If your PC Card uses COM3, set COM1 as *Disabled*. If your PC Card uses COM4, set COM2 at *Disabled*.

The PC Card stops communicating properly.

- The application may have been reset when the computer is turned off or in Standby mode. Exit and restart the application.

Power Management Problems (for Windows)

The computer does not enter Standby or Suspend mode automatically.

- If you have a connection to another computer, the computer does not enter Standby or Suspend mode if the connection is actively in use.
- Make sure that the Standby or Suspend time-out is enabled.

The computer does not enter Standby or Suspend mode immediately.

- If the computer is performing an operation, it normally waits for the operation to finish.

The computer does not resume from Standby or Suspend mode.

- The computer automatically enters Standby or Suspend mode when the battery pack is empty. Do any one of the following:
  – Connect the AC or car adapter to the computer.
  – Replace the empty battery pack with a fully charged one.

The computer does not enter Suspend mode.

- If you are using Windows 98, make sure that the Suspend-to-disk partition or file exists.
- You might be using a PC Card that prevents the computer from entering Suspend mode. To enter the mode, stop the communication program and then remove the card or stop the card.

Printer Problems

The printer does not work.

- Make sure that the printer is turned on (if it comes with an independent power source) and is online (ready to use).

- Make sure that the printer's signal cable is properly connected.
- Make sure that the printer driver is correctly installed.
- Make sure that you have assigned the printer port correctly in your operating system or application program.
- Make sure that the printer port is enabled in the SCU program.

The printer prints garbled information.

- Make sure that the printer driver is correctly installed.
- Make sure that the printer cable is properly connected.

Software Problems

An application program does not work correctly.

- Make sure that the software is correctly installed.
- If an error message appears on the screen, consult the software program's documentation for further information.
- If you are sure the operation has stopped, reset the computer. (See "Resetting the Computer" in this chapter.)

Sound Problems

No sound is produced.

- Make sure that the volume control is not set too low.
- Make sure that the audio driver is correctly installed.
- Make sure that the computer is not in Standby mode.
- If using an external speaker, make sure that the speaker is properly connected.

Distorted sound is produced.

- Make sure that the volume control is not set too high or too low. In most cases, a high setting can cause the audio electronics to distort the sound.

The sound system does not record.

- Adjust the playback or recording sound levels.

The external microphone or audio device does not work.

- Make sure that the microphone is connected to the proper connector on the computer.
- Make sure that your computer is equipped with the driver needed.
- Click the speaker symbol on the taskbar and check the Windows volume control.
- Check the volume control of your computer.

Startup Problems

When you turn on the computer, it does not respond and the Power Indicator does not appear.

- If you are using an external AC power, make sure that the AC adapter is correctly and securely connected. If so, make sure that the electrical outlet works properly.
- If you are using the battery power, make sure that the battery is not discharged.

When you turn on the computer, it stops after POST.

- Restart your computer.

The message "Operating system not found" appears on the screen after you turn on the computer.

- Make sure that there is no floppy disk in the floppy disk drive. If there is, remove it and restart the system.
- If this message appears when you are booting from the hard disk, insert a bootable disk in the floppy disk drive and check the condition of the hard disk.

The message "Invalid system disk" or "Disk error" appears on the screen after you turn on the computer.

- If you are deliberately trying to boot from a floppy disk, replace the disk with a bootable one and press any key to continue booting.
- If you are booting from the hard disk, make sure that there is no floppy disk in the floppy disk drive. If there is, remove it and restart the system.
- If this message appears when you are booting from the hard disk, insert a bootable disk in the floppy disk drive and check the condition of the hard disk.

Other Problems

The date/time is incorrect.

- Correct the date and time via the operating system or SCU program.
- After you have performed everything as described above and still have the incorrect date and time every time you turn on the computer, the RTC (Real-Time Clock) battery is at the end of its life. Call an authorized dealer to replace the RTC battery.

Resetting the Computer

You may have to reset (reboot) your computer on some occasions when an error occurs and the program you are using hangs up.

If the system operation seems to hang up, first wait. It is possible that the system is processing data. Periodically check the hard disk drive in-use indicator, if it flashes irregularly, the program may be accessing data and preventing you from using the keyboard. If you are sure the operation has stopped and you cannot use the "restart" function of the operating system, reset the computer.

Reset the computer by any one of these method:

- Press Ctrl+Alt+Del if you have an external keyboard connected.
- If the above action does not work, turn off the system. Wait for at least five seconds and turn it on again.
- It the above does not work, insert a small rod, such as a straightened paper clip, into the reset switch on the right side of the Tablet PC and press firmly.

CAUTION: Resetting will cause any unsaved data to be lost.

APPENDIX A

Specifications

NOTE: Specifications are subject to change without any prior notices.

Parts		Specifications
CPU		Pentium III / Celeron series microprocessors, µPGA2 or BGA2 package
Cache Memory		128 KB on-die (integrated with Celeron CPU) 256 KB on-die (integrated with Pentium III CPU)
ROM BIOS		256 KB Flash EEPROM
RAM	System	64 MB or 128 MB SDRAM SO-DIMM
	Video	4 MB (built-in on VGA chip)
Display	Panel	10.4-inch TFT XVGA LCD, resolution up to 1024×768, 18-bit color
	Video controller	Integrated into ATI 3D RAGE Mobility-M or M1, hardware 2D/3D video/graphics accelerator
	Video port	VGA port via optional Port Replicator module
Keyboard (external/wireless) – optional		Standard keys, numeric keypad, 12 function keys, and Windows keys
Pointing device		Touchscreen pen or wireless keyboard/mouse
Storage device	Floppy disk drive	3.5-inch, 1.44 MB (via optional USB FDD module on Expansion port)
	Hard disk drive	2.5-inch, IDE, Ultra DMA33 supported
	CD/DVD drive	24X CD-ROM or above 8X DVD-ROM or above (both via optional CD/DVD-ROM module on Expansion port)
Audio	Audio controller	Integrated into Crystal codec CS4299, 20-bit stereo digital-to-analog and 18-bit stereo analog-to-digital converter, Windows Sound System compatibility and full-duplex capability
	Audio port	Two audio ports for Mic-in / Line-out
PC Card		Type II x 1, PCMCIA 2.1 compliant, ZV Port and CardBus support

Parts			Specifications
I/O ports	On front panel		IR port for wireless keyboard/mouse
	On left side		HP-SIR port, RJ-11 fax/modem port
	On right side		Serial port, Mic-in, Line-out
	On underside		CCD port (USB-type)
	X-Bay interface (option)		IEEE 1394, serial ports, RJ-45
	Expansion port (option)		USB port (supports USB FDD boot-up function), serial port, ECP/EPP parallel port, PS/2 port, Mic-in/Line-in/Line-out, CD-audio
Modem			56 Kbps internal Fax Modem
LAN			Fast Ethernet, 10/100 Mbps auto-negotiation
Power		AC adapter	100~240 V AC, 50~60 Hz auto-switching
		Car adapter	10.7~32 V DC
		Primary battery	Li-ion battery, 4 cells
		Secondary battery (option)	Li-ion battery, 6 cells
Dimension (W×D×H)			11.6×9.3×1.65 inch (295×236×42 mm)
Weight			4.84 lb (2.2 kg) – without secondary battery pack
Environment		Temperature	Operating: 0°C (32°F) to 45°C (113°F) Storage: –40°C (–40°F) to 70°C (158°F)
		Humidity	Operating: 5% to 95% RH, non-condensing